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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,104	06/30/2003	Anton W. Lamprecht	C525 0243	7930

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EXAMINER

HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,104

Applicant(s)

LAMPRECHT ET AL.

Examiner

Robert A Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 33-39 is/are rejected.
- 7) ☒ Claim(s) 27-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9-25-03</u> . | 6) <input type="checkbox"/> Other: ____  |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 29 is rejected under 35 U.S.C 102(b) as being clearly anticipated by Newman et al(4786295).

Newman et al teaches a system for filtering an airflow comprising a filtration unit having an inlet, an outlet, and an air mover for generating the airflow between the inlet and the outlet, a filtration element located in a path of the airflow between the inlet and the outlet, and a memory device coupled to the filtration element for storing information indicative of a remaining capacity of the filtration element(column 10 lines 51-58). Newman et al further teaches a receptor configured to interface with the memory device. Newman et al further teaches wherein the filtration element comprises a sorbent. Newman et al further teaches wherein the memory device is configured to store information which is indicative of an accumulated chronological time indicative of the time during which the filtration unit has been installed in the system. Newman et al further teaches wherein the receptor comprises a controller and the controller is configured to use the information stored in the memory device to determine a filtration element has reached its maximum capacity.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson, Jr et al(6387156) taken together with Newman et al(4786295).

Richardson, Jr et al teaches a method for determining an operational state of a system for filtering by-products generated during a media imaging operation, the method comprising collecting the by-products(hose 117) in an airflow, channeling the airflow through at least one filtration element, measuring a first pressure difference. Richardson, Jr et al is silent as to measuring a first flow rate of the airflow in a first location, and determining the operational state of the system based at least in part on a comparison of the first flow rate to at least one first threshold. Newman et al teaches a method for determining an operational state of a system for filtering particulate from an airflow, wherein the airflow is channeled through a filtration element, a first airflow rate of the airflow in a first location is measured(column 10 lines 39-43), and determining the

operational state of the system based at least in part on a comparison of the first flow rate to at least one first threshold(column 11 lines 1-6). It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide steps of measuring a first flow rate of the airflow in a first location, and determining the operational state of the system based at least in part on a comparison of the first flow rate to at least one first threshold so that a correct operational state of the system can be determined based on either a lower than normal or higher than normal airflow rate through the filtration element.

Richardson et al further teaches measuring pressure with a second sensor at a second location spaced from the first location, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to measure a second flow rate at a second location spaced apart to provide a more accurate measurement of the flow rate than with just a single airflow measurement. Newman et al further teaches wherein determining the operation state of the system based at least in part on the comparison of the first flow rate to at least one first threshold comprises identifying a potential existence of at least one of an airflow blockage in the system and an airflow leak in the system(column 11 lines 24-34). Newman et al further teaches wherein determining the operational state of the system based at least in part on the comparison of the first flow rate to at least one first threshold comprises determining whether the filtration element has reached a capacity. Newman et al further teaches wherein measuring the first flow rate of the airflow in the first location comprises measuring pressure at one of more locations. Richardson et

al further teaches measuring a first pressure at a point where the airflow has a first cross sectional area and a second pressure at a point where the airflow has a second cross sectional area different than the first cross sectional area.

Claims 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson, Jr et al(6387156) taken together with Newman et al(4786295)

Richardson et al teaches a system for filtering by-products generated during a media imaging operation, the system comprising a filtration unit having an inlet and an outlet, a collection nozzle coupled to the inlet and locatable proximate to the imaging operation for collecting the by-products, an air mover connected to generate an airflow through the filtration unit and the collection nozzle. Richardson et al is silent to a first sensor for generating a first signal indicative of a first rate of the airflow in a first location, and a comparator configured to receive the first signal and to compare the first signal to at least one threshold to determine an operation state of the system. Newman et al teaches a system for filtering particulate from an airflow, wherein the airflow is channeled through a filtration element, including a first sensor(212) for generating a first signal indicative of a flow rate of the airflow in a first location(column 10 lines 39-43), and comparator configured to receive the first signal and to compare the first signal to at least one threshold to determine an operation state of the system(column 11 lines 1-6). It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide a first sensor for generating a first signal indicative of a first rate of the airflow in a first location, and a comparator configured to receive the first signal and to

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compare the first signal to at least one threshold to determine an operation state of the system so that a correct operational state of the system can be determined based on either a lower than normal or higher than normal airflow rate through the filtration element. Newman et al further teaches means (audible alarm; column 11 lines 13-15) for communicating an indication of the operational state to a user. Richardson et al further teaches measuring pressure with a second sensor at a second location spaced from the first location, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to measure a second flow rate at a second location spaced apart to provide a more accurate measurement of the flow rate than with just a single airflow measurement. Newman et al further teaches wherein determining the operation state of the system based at least in part on the comparison of the first flow rate to at least one first threshold comprises identifying a potential existence of at least one of an airflow blockage in the system and an airflow leak in the system (column 11 lines 24-34).

Claims 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson, Jr et al (6387156) taken together with Newman et al (4786295)

Richardson, Jr et al teaches a method for determining an operational state of a filtration element used within a system for filtering by-products generated during a media imaging operation, comprising collecting the by-products in an airflow, channeling the airflow containing the by-products through the filtration element. Richardson, Jr et al is silent as to maintaining a count

indicative of a remaining capacity of the filtration element in a memory device coupled to the filtration element, and determining the remaining capacity of the filtration element based at least in part on the count. Newman et al teaches a method for determining an operational state of a filtration element used within a system for filtering particulate comprising channeling the airflow containing the by-products through the filtration element, and maintaining a count (accumulated chronological time of installation of a filtration element) indicative of a remaining capacity of the filtration element in a memory device coupled to the filtration element, and determining the remaining capacity of the filtration element based at least in part on the count. It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of maintaining a count indicative of a remaining capacity of the filtration element in a memory device coupled to the filtration element, and determining the remaining capacity of the filtration element based at least in part on the count so that the filter can be replaced at the correct time during the filtration cycle.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson, Jr et al (6387156) taken together with Newman et al (4786295).

Richardson, Jr et al teaches a system for filtering imaging by-products produced during an imaging operation, the system comprising means for generating an airflow carrying the by-products, means for filtering the airflow to remove the by-products from the airflow. Richardson, Jr et al is silent as to means for detecting a flow rate of the airflow, and means for determining an operational state of the system based at least in part on the detected flow rate.



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Newman et al teaches a system for filtering particulate from an airflow, including means for detecting a flow rate of the airflow, and means for determining an operational state of the system based at least in part on the detected flow rate. It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide a means for detecting a flow rate of the airflow, and means for determining an operational state of the system based at least in part on the detected flow rate so that a correct operational state of the system can be determined based on either a lower than normal or higher than normal airflow rate through the filtration element.

***Allowable Subject Matter***

Claims 27-32 are objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 27,29, and 30 recite determining a count using methods other than maintaining an accumulated chronological time indicative of the time during which the filtration element has been installed in the system. Claim 28 depends on claim 27 and hence would also be allowable upon incorporation of claim 27 into claim 26. Claims 31 and 32 depend on claim 30 abd hence would also be allowable upon incorporation of claim 30 into claim 26.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval(PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

RAH

March 14, 2005

  
ROBERT A. HOPKINS  
PRIMARY EXAMINER  
A.U. 1724